



# DOWN TO EARTH FOR SUSTAINABLE DEVELOPMENT

**HUAZHONG AGRICULTURAL UNIVERSITY (HZAU)**, located in Wuhan, the capital of central China's Hubei Province, is a national key university. Starting life as the Hupeh Agricultural College founded in 1898 by Zhang Zhidong, the viceroy of Hubei and Hunan in the Qing dynasty, HZAU is a leading light for higher education in agriculture. These days, as a research university focused on agricultural and life sciences, HZAU has a balanced range of disciplines. Dedicated to higher education, research and social service, HZAU seeks to meet sustainable development goals with advanced agricultural research and technologies. Here, **Deng Xiuxin**, HZAU's president, outlines its vision.



## DENG XIUXIN

President of Huazhong Agricultural University

### WHAT IS UNIQUE ABOUT THIS AGRICULTURAL UNIVERSITY?

Our uniqueness lies in the maintenance of a traditional farming culture, enhanced by the concepts of green agriculture and sustainable development. We promote a down-to-earth campus spirit for research and education, and follow the university motto of 'learn and practice, achieve and help achieve'. Our researchers delve deep into important research questions, rather than following the crowd in chasing hot topics. We seek innovation in agricultural technologies that provide safe, healthy food, while keeping the environment clean and green — in essence, a pursuit for sustainable development.

We extend this principle to a green campus environment, for instance, by implementing a separate drainage system on campus to separate wastewater and rainwater. The sustainable development concept is also reflected in our management style, emphasizing a harmonious and supportive environment, and a balanced development of research and teaching, and of basic and applied research.

Our core mission is clear: to solve the problems of feeding people — the impetus for the founding of Hupeh Agricultural College in 1898. Today, this remit is expanded to finding answers to problems related to agriculture, farmers and rural areas, which are of great importance to China's economic and social development. We are proud to contribute to this vital industry.

### HOW DOES RESEARCH AT HZAU CONTRIBUTE TO SOCIETAL DEVELOPMENT?

We conduct basic life science research, but our agricultural research is also highly applicable and in line with national strategic needs. We strive to help alleviate poverty, improve farmers' lives and push

economic development with our breakthroughs. For instance, our researchers have cultivated a rice variety with improved grain quality and yields, and promoted double cropping of rice in the middle-lower Yangtze River Plain, increasing profits for farmers. A double-low (low erucic and low glucosinolate contents) rapeseed hybrid developed by one of our teams can increase yields by 10-20%. Its successful adoption in the Hubei province and the surrounding regions has brought an economic boost of more than 1 billion RMB. In Jiangxi and the Three Gorges areas, farmers have also benefited from our citrus research, especially from the high-quality varieties developed by my research group. We have also collaborated with a local enterprise, which has applied our swine breeding technology and swine vaccines to scale up production, generating hundreds of millions of RMB in profit.

### WHAT ARE THE MAJOR DEVELOPMENTS AT HZAU DURING YOUR TENURE?

The last decade has seen great changes. Since coming under the auspices of the Ministry of Education in 2000, our overall ranking among domestic universities has improved significantly. We are now one of the top agricultural universities in China. In terms of research output, our five-year average growth rate is a leader among agricultural universities in the country. Peer-review publications have increased from the single-digits in early 1990s to thousands today, many of which are high-quality papers in leading journals. More importantly, our research breakthroughs are transformed into agricultural technologies that make an impact in the agricultural industry. Last year, five of our subjects: biology, horticulture, animal science, veterinary medicine, and agricultural economic



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management were selected into the national 'Double First-Class' initiative.

Our development is also demonstrated in the improvement of student quality. Our graduates have been widely praised by enterprises, institutes and governments. The students make-up has also changed, doctorate students have nearly doubled, with more than 500 new enrolments every year. In the past decade, female students accounted for less than 20% of the total in the agricultural university; now, the ratio is more than 50%. We are also enhancing international exchange in both education and research. Today, more than 400 international students have chosen to pursue their doctorate degrees at HZAU. More than 1,000 students have been given overseas training opportunities. These

exchanges have improved our global reputation.

### WHAT ARE YOUR GOALS FOR FUTURE DEVELOPMENT?

We want to better serve society with our research and educational programmes. Agricultural science is essential for meeting global development challenges, such as food security, food quality, environmental degradation and climate change. We hope that our technology will help enable the provision of sufficient nutrients, make food safer, and meet the varied health needs of different categories of consumers.

Another dimension of our development is enhancing our role in education. We aspire to foster creativity and support students to grow into talented professionals who will contribute to agricultural and socio-

economic development. We are also nurturing a service-oriented campus culture and striving to provide a thriving platform for the young to grow.

### HOW DO YOU ACHIEVE THESE GOALS?

To develop, we need resources, out of which, human resources are the most important. We will continue to take talent recruitment as a priority and allocate extensive funding to attract the best people, ensuring the young scientists have sufficient settle-in and start-up resources. To foster young faculty members, we provide a platform for them to display their potential as we want to encourage them to innovate rather than seeking quick success. We try to make sure they have a say in academic policies and are well

supported administratively, help them balance research and teaching, and ensure fairness in research evaluation and funding allocation. There are also training and mentoring programmes for young researchers.

We are endeavouring to make our grant applications more competitive and are seeking to broaden our collaborations with local enterprises and international institutions. Meanwhile, our management maintains detailed budgets, supported with rigorous evaluation, to increase research efficiency and fairness in resource allocation. Our university's large space of about five square kilometres is conducive for a supportive environment for research and learning. We have a great foundation for future growth. ■